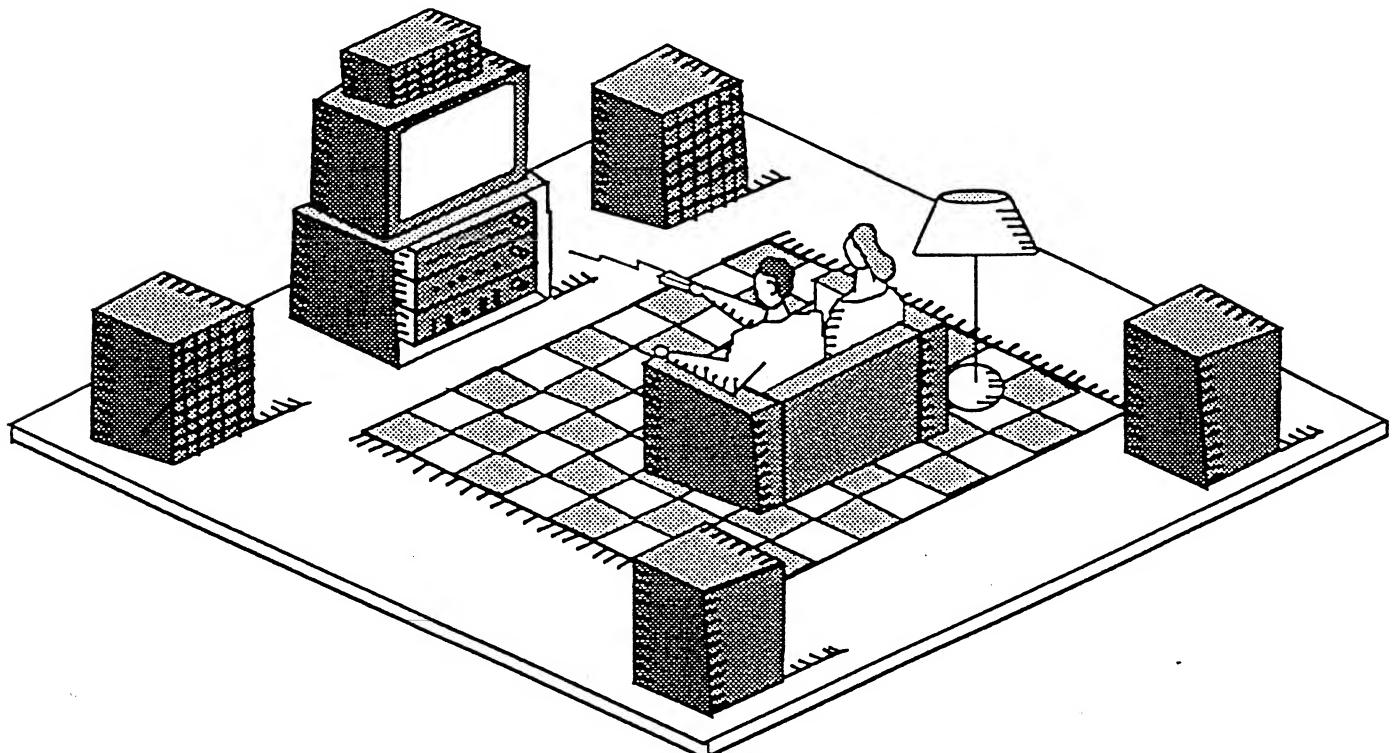


# ■ AudioSource SS Six

**DOLBY SURROUND**  
PRO • LOGIC Surround Sound Processor  
with Rear and Center Channel Amplifiers,  
plus Remote Control



Congratulations on your new purchase and welcome to the AudioSource family of satisfied customers. We trust that you will continue to enjoy the value and quality of your AudioSource SS Six Dolby Surround Sound Processor. In order to make sure that you are experiencing the best performance out of your unit, please take a few moments to read this manual before you get started. Also, be sure to retain this manual should you need to refer to it in the future.

**WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.**



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**CAUTION: To reduce the risk of electric shock, do not remove cover (or back); no user servicable parts inside. Refer servicing to qualified service personnel.**

**CAUTION: "TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT." - "ATTENTION: POUR EVITER LES CHOC ELECTRIQUES, INTROUDUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND."**

## Safety Instructions

**Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.

**Retain Instructions** - The safety and operating instructions should be adhered to.

**Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.

**Follow Instructions** - All operating and use instructions should be followed.

**Water and Moisture** - The appliance should not be used near water. For example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

**Ventilation** - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in situation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

**Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

**Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

**Grounding or Polarization** - Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

**Power-Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed on or against them, paying particular attention to

cords at plugs, convenience receptacles, and the point where they exit from the appliance.

**Cleaning** - The appliance should be cleaned only as recommended by the manufacturer.

**Power Lines** - An outdoor antenna should be located away from power lines.

**Non-use Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

**Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

**Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:

- A) The power supply cord or the plug has been damaged; or
- B) Objects have fallen, or liquid has been spilled into the appliance; or
- C) The appliance has been exposed to rain; or
- D) The appliance does not appear to operate normally or exhibits a marked change in performance; or
- E) The appliance has been dropped, or the enclosure damaged.

**Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

**Product Servicing** - In the event your SS Six fails to operate properly, please contact AudioSource directly for further assistance, repair, service, or replacement. Please see back cover for address and telephone number.

## SS Six Overview

The AudioSource SS Six represents the State of the Art in add-on Dolby Pro Logic Surround Sound Processors. First and foremost, it will decode the Dolby Surround information into usable signals. The self contained amplifiers bring these additional sounds to your Home Theater speakers. A subwoofer pre-amp output jack is located on the back panel. Any of the internal amplifiers may be bypassed if you feel the need to upgrade your system along the way. The built-in Test mode and sophisticated auto calibration circuitry easily keep your system in top performance. The rich variety of operating modes allow you to enjoy two, four and five speaker listening from Dolby Surround, stereo or mono sources. Full LED meters and the remote control make adjusting the system simple. When wired properly, the SS Six remote will control the volume of your entire set-up. The SS Six is designed to hook up to your current system quickly and with a minimum of wire changing. The back panel reproduces any jacks you may have forfeited in hooking the SS Six to your other components.

### A Few Words About Home Theater

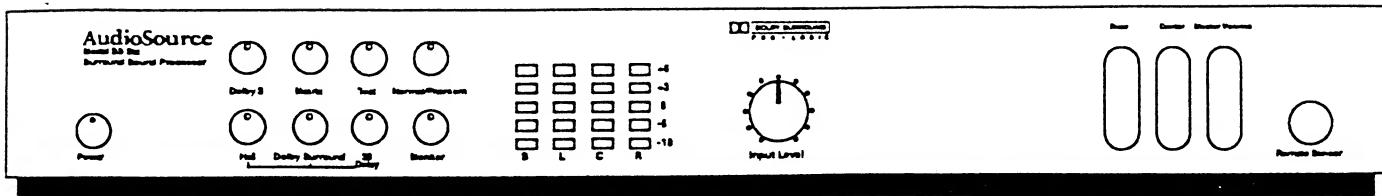
Dolby Stereo is the trademarked name for the Multi-Channel sound that is recorded for motion pictures. When these movies are transferred to video, these extra audio channels are transferred also, as Dolby Surround. However, a normal VCR or Stereo System cannot make use of these extra channels. A Dolby Pro-Logic Surround Sound Decoder, such as the AudioSource SS Six, makes it possible to re-create the multi-speaker theater experience at home. Your existing set-up is enhanced by the addition of two rear, or surround speakers, and a center channel, or dialogue speaker. The AudioSource SS Six will decode these rear and center channels, amplify them and send their sound to the appropriate speakers, and then send the rest of the signal on along to your other components. Remember, the signal has to go both In *and* Out of the SS Six for the Home Theater effect to work properly.

Dolby Surround encoding is becoming increasingly more popular in other mediums. Many television programs are now being broadcast in Dolby Surround. Recent Compact discs have been released with Dolby Surround encoding. You can still enjoy the thrill of multi-speaker sound even if your source is not Dolby encoded. The Hall and Matrix modes of the AudioSource SS Six will deliver exhilarating, multi-channel sound from any stereo or even mono signal.

### Some System Guidelines

In setting up your Home Theater system, keep in mind a few rules to assure yourself of the best performance. The rear, or surround, speakers should be about 30 to 40 per cent of the front speakers' volume. These speakers are best placed at about ear level, either to the side of, or behind the listener. The center channel will primarily keep the dialogue matched to the picture. For this reason, the center speaker should be in front of the listener, as close to the screen as possible. A video shielded speaker is best for this application, as it will eliminate the adverse ways that a speaker magnet can affect the picture quality. Positioning your Front Left and Front Right speakers further from each other will increase the size of the listening area, and allow sounds to be placed more accurately.

There are two basic ways to integrate the SS Six into your system. The first method is referred to as an "In-Line" hook-up. In this fashion, the SS Six is inserted between two components, a VCR and a Television, for example. The second method employs a "Loop", where signal is fed to and from the SS Six from a single component, usually a receiver or pre-amp, forming a loop. This will often be referred to as a "Tape Monitor Loop", because it will use the Tape In and Tape Out jacks, and the Monitor switch on your receiver or pre-amp. In this second method, any source may be processed by the SS Six; VCR, Laser Disc, CD, Tape, Phono, DAT, etc.. by simply selecting that source on the receiver or pre-amp.



# Using the Controls

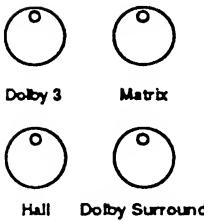
## Power



The power button switches the SS Six "ON" or "OFF". A red LED indicates when the unit is ON.

## Modes

There are four different modes: Dolby Surround, Dolby 3, Hall and Matrix. These determine what type of decoding or processing the SS Six will employ. Touching one of these buttons will activate that mode. A red LED will glow to verify your choice. Selecting the right mode will allow you to enjoy multi-speaker sound no matter what the source.



**Dolby Surround:** Decodes and restores the Dolby Surround tracks of any source so encoded; video tapes, laser disc, television, compact discs.

**Dolby 3:** Sends all sounds to front 3 speakers.

**Hall:** Creates a concert hall ambiance from non-Dolby but stereo program material. The rear speakers contribute to the spaciousness of the effect.

**Matrix:** Synthesizes a stereo image from mono signals that will play through all of the speakers.

## Normal/Phantom



Normal/Phantom

If a center channel speaker is not available, the SS Six will create a "Phantom" center image by sending these sounds equally to the left and right speakers. The LED stays off during normal operation, and is lit to indicate Phantom operation. Please note: If you are not using a center channel speaker, be sure to turn off the center channel amplifier. Refer to Rear Panel Controls on the next page.

## Test



Test

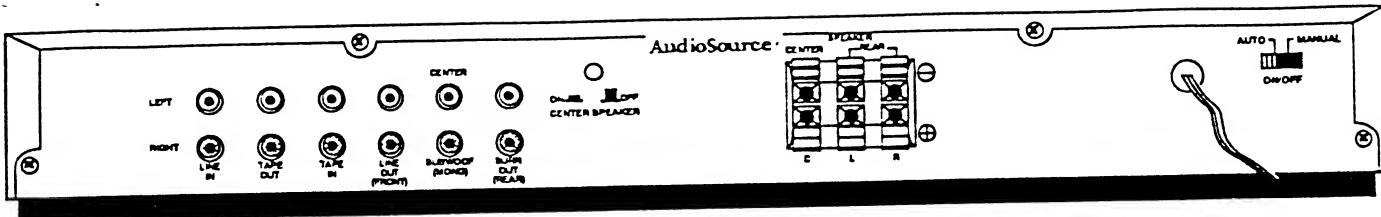
The Test mode allows you to quickly and accurately set the levels for each of the speakers, without relying on an input signal. Pressing the button so that the LED is lit sends a tailored pink noise signal to each speaker in a rotating order. The Meters will indicate which speaker is receiving the test signal. Either the volume controls on the front panel or on the remote control may be used to set the levels. Set all the levels so that they appear to have the same volume. The Test mode is only active in the Dolby Surround mode.

## Monitor



Monitor

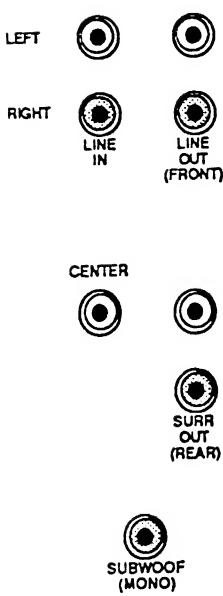
On the SS Six, the Monitor switch disables the Line Inputs on the back panel, and activates the Tape In instead. The signal coming in these jacks is not decoded by the SS Six. Instead, the SS Six is bypassed, or rendered "Off-Line". The volume controls will have no effect when Monitor is selected. If no unit is connected to the Tape In, selecting the monitor function will act as a "Mute" switch.



# Hooking up the Wires

Audio signals travel OUT of one component and IN to another. All of your connections should also go from OUT to IN. When you are using the SS Six in a loop from your receiver or pre-amp, the MONITOR switch on that receiver or pre-amp must be engaged. Refer to Some System Guidelines on page 1.

## Line In



## Line Out (Front)

The Center and Surround Channels are processed by the SS Six. The Left front and Right front (stereo) signals remain intact and exit the SS Six here. From the SS Six the signal goes IN to your Television Audio Inputs, or IN to the TAPE IN, MONITOR, or PLAY jacks on your receiver/pre-amp.

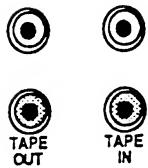
## Center & Surround Out (Rear)

Inside the SS Six there are amplifiers for the Center and Surround channels. However, you may choose to upgrade your system to include more powerful external amplifiers. These jacks provide a pre-amp output to drive any additional amplifiers you may wish to use.

## Subwoofer (Mono)

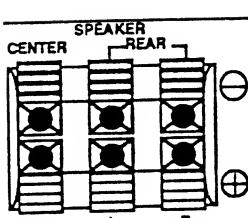
A subwoofer is a large, low frequency speaker that provides extended bass response to your system. The SS Six employs a built-in electronic crossover to provide a pre-amp signal suitable for an amplifier / subwoofer package.

## Tape In & Tape Out.



Setting up a "loop" to the SS Six is done through the tape recorder jacks on your receiver or pre-amp. In some cases, you may have had to disconnect your tape deck to allow the SS Six to access these jacks. In this situation you may use the Tape In and Tape out jacks on the SS Six instead. To listen to the tape deck, activate the Monitor button on the front panel. Metal Jumpers are included which can be used to connect the Tape In jacks and the Tape Out jacks together. With these jumpers inserted, selecting Monitor will defeat the Surround effect, but the program will still be heard.

## Speaker



The amplified Center and Surround signals hook directly to the speakers from these outputs. The push-on style terminals can accommodate up to 16 gauge speaker wire, which is recommended for long speaker runs, otherwise 18 gauge will be adequate. When connecting the speakers, it is very important to retain the correct polarity. To do this, be sure that the Red or "+" terminal on the SS Six is connected to the Red or "+" terminal on the speaker. The Black or "-" terminals on the SS Six must also connect to the Black or "-" speaker terminal. This polarity is easily preserved by observing the color, stripe or ribbing that may appear on the speaker wire. The terminals are labeled for Center, Rear Left and Rear Right and should be connected accordingly.

## SS Six Specifications

Amplifier Power Output:	Selectable; 24 Watt Peak Center + 24 Watt Peak Rear, Or, 24 Watt Peak Rear + 24 Watt Peak Rear
Frequency Response:	Dolby Surround; 100 Hz to 7k Hz Matrix; 20 Hz to 20k Hz Hall; 100 Hz to 7k Hz
Signal to Noise Ratio (Surround Mode):	> 90 dB
Delay Time:	30 ms; 50 ms
Delay Method:	Digital
Input Sensitivity (Line):	150 mV
Input Impedance	47k Ohms
Maximum Input Capacity:	5 V
Output Level (Surround Out, Dolby Mode):	1.5 V
Center Channel Output Level:	1.5 V
Subwoofer Output Level:	2.0V
Subwoofer Crossover Frequency:	100 Hz
Function Modes:	Dolby Pro Logic Dolby 3 Hall Matrix Line In Tape In
Inputs:	Line Out (Front) Center Out Subwoofer Out Tape Out Surround Out
Outputs:	5 Segment LED meter x 4 (Center, Left, Right, Surround)
Reference Display:	120 V, AC; 60 Hz; 90 Watts
Power Requirements:	Dimensions: 16 1/2" W x 2 1/16" H x 9 1/8" D
Dimensions:	Weight: 8 lbs., 14 oz.

## Remote Specifications

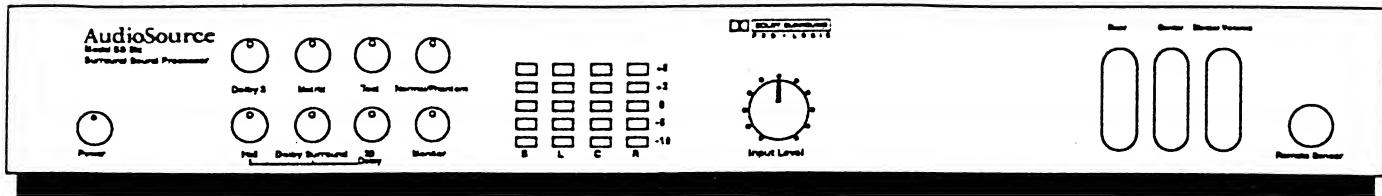
Type:	Infrared Transmitter
Batteries:	1.5 V x 2; UM-3 style; "AA" Size
Dimensions:	2.5" W x 6.7" H x 0.7" D

*Designs and Specifications subject to change without notice*

**AudioSource**

1327 North Carolan Ave.  
Burlingame, CA 94010  
415 348-8114 FAX 415 348-8083

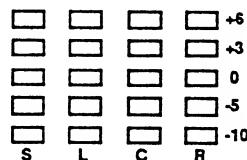
Printed in Taiwan



# Using the Controls

## Meters

The SS Six features four columns of LED meters; S = Surround, L = Left, C = Center, R = Right. The upper segment of each meter indicates a potential for distortion or "clipping" when lit constantly. The meters as a group perform three separate functions. Primarily, they are input meters, and will display how much signal is present in each channel. This information can be extremely useful, for example in determining if any surround information is present during a certain scene of a movie. This is the normal mode for the meters. In addition, the meters will also display the relative volume settings assigned to each channel, by touching any of the three volume controls. Finally, in the Test mode, the meters will indicate which speaker is receiving the test signal.



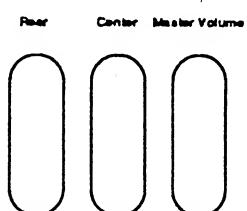
## Input Level

The input level knob is used for just that, setting the input level. It is *NOT* a volume control. Normally, this knob will be turned 1/2 to 3/4 of the way up. When set properly, the top row of the meters should faintly flicker during the loudest passages from your source.



## Volume Controls

All three of the SS Six volume controls – Rear, Center, and Master – work in a similar fashion. When first touched, the Meters will display the relative volume settings for each channel. Pressing the control again or continuing to depress the control for a few seconds will cause that switch to become active and a new level may be set. Pressure on the top half of the control will raise the volume of that channel. Pressure on the lower half will bring that volume down. After a new level has been set, the Meters will remain in the relative volume mode for a few seconds longer, and then switch back to their normal mode.



**Rear:** Raises or lowers the level of the Rear Channel in relation to the other speakers.

**Center:** Raises or lowers the level of the Center Channel in relation to the other speakers.

**Volume:** Raises or lowers the overall volume of the entire system, including the level of the signal being sent to your other components and speakers.

## Remote Sensor

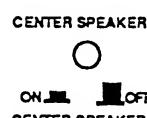
This infrared "eye" should be kept unobstructed so that it may "see" the commands from the Remote Control.



## Rear Panel Controls

### Center Speaker On / Off

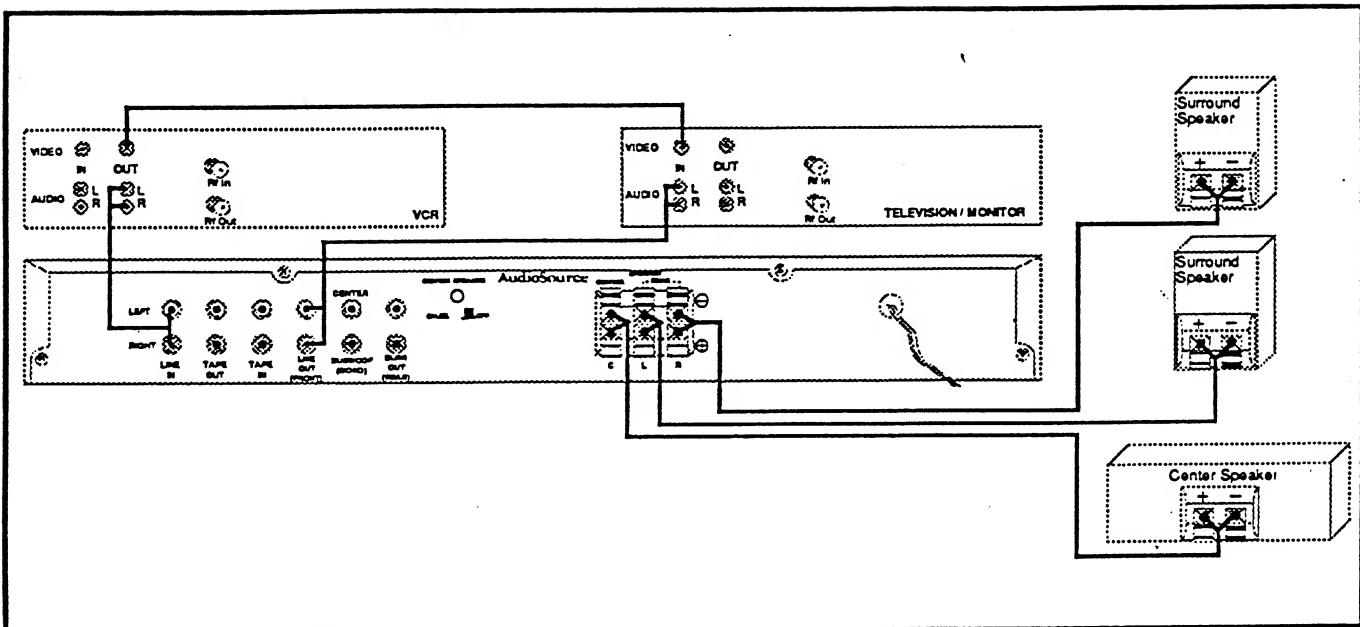
If no center speaker is being used turn this switch off, and turn the Phantom switch on the front panel On. Also turn the Center Speaker switch Off if the center speaker is being used with an external amplifier.



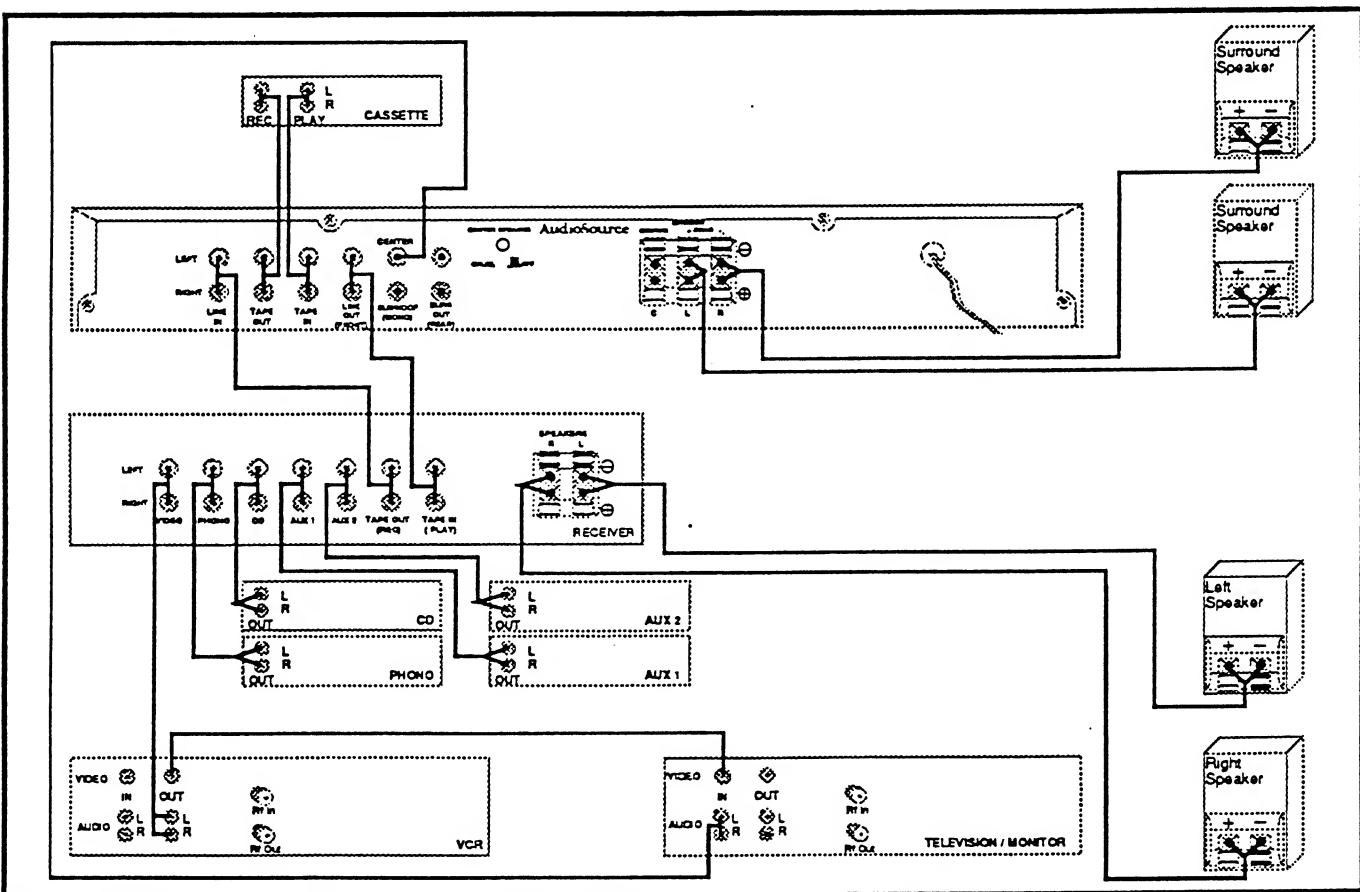
### Auto or Manual On / Off

The power control has two positions; Manual and Auto. In the "Manual" position, use the "Power" button on the front panel or your remote control to turn the power ON and OFF. In the "Auto" position, whenever a signal is detected at the inputs, the SS Six will automatically turn itself "ON". If no signal is detected over a period of minutes, the SS Six will automatically turn itself "OFF". This allows the user to bypass the "POWER" switch during system start-up and shut-down.

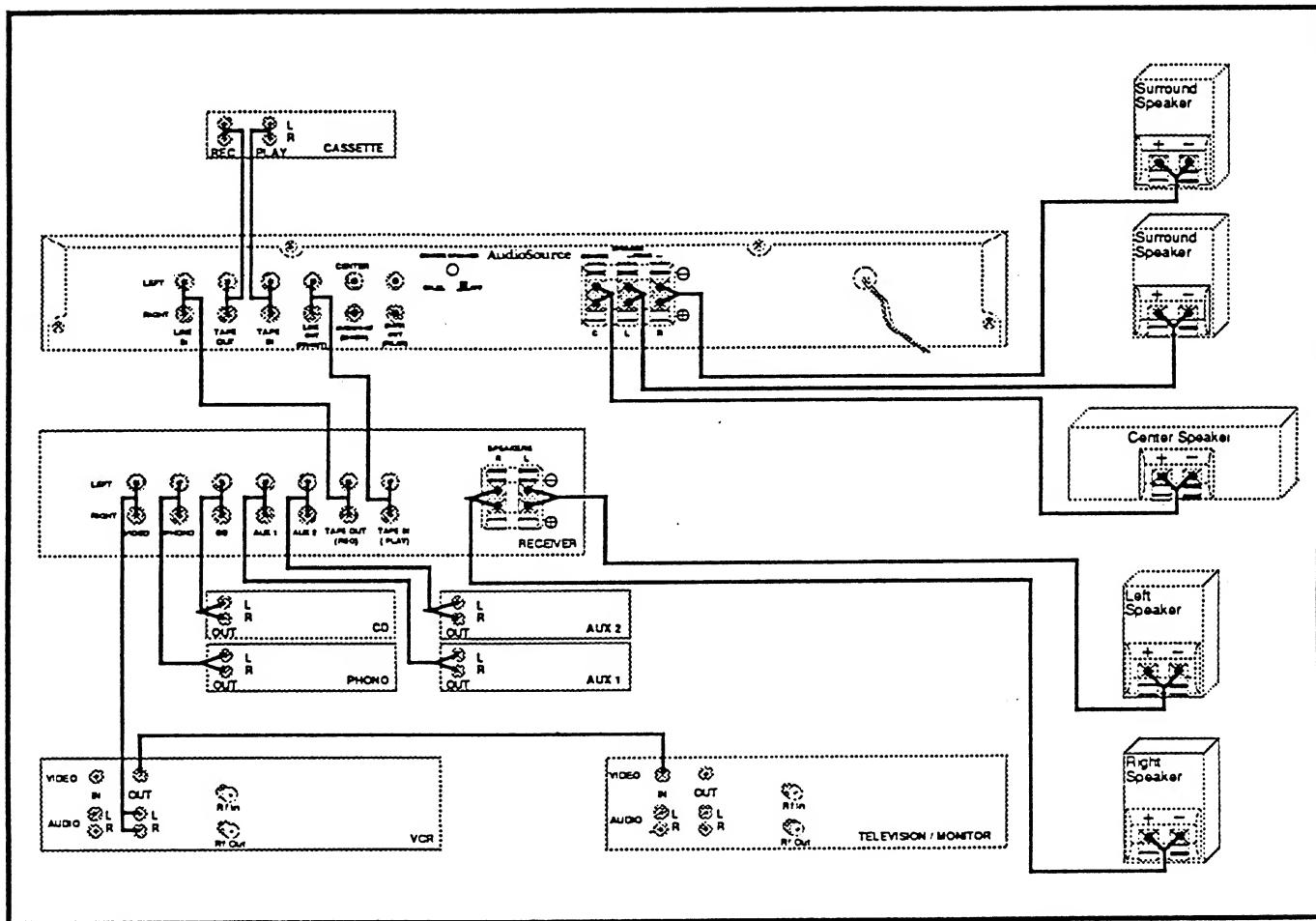




**SAMPLE SET-UP #1: In Line System.** In this configuration, the Television speakers serve as the Front (Left & Right) speakers.



**SAMPLE SET-UP #2: Tape Monitor Loop.** In this configuration, the Television, SS Six, and Stereo System are all united together. To activate the SS Six Surround Sound Processor, select the "Tape Monitor" function on the receiver or Pre-Amp. To listen to the cassette deck, also select the "Monitor" function on the SS Six. The television speakers will provide the center channel. The "Center Speaker" switch on the back of the SS Six should be OFF.



**SAMPLE SET-UP #3: Tape Monitor Loop.** In this configuration, the television, SS Six, and Stereo System are all united together. To activate the SS Six Surround Sound Processor, select the "TAPE MONITOR" function on the receiver or Pre-amp. To listen to the cassette deck, also select the "MONITOR" function on the SS Six.

## SS Six Specifications

Amplifier Power Output:	Selectable; 24 Watt Peak Center + 24 Watt Peak Rear, Or, 24 Watt Peak Rear + 24 Watt Peak Rear
Frequency Response:	Dolby Surround; 100 Hz to 7k Hz Matrix; 20 Hz to 20k Hz Hall; 100 Hz to 7k Hz
Signal to Noise Ratio (Surround Mode):	> 90 dB
Delay Time:	30 ms; 50 ms
Delay Method:	Digital
Input Sensitivity (Line):	150 mV
Input Impedance	47k Ohms
Maximum Input Capacity:	5 V
Output Level (Surround Out, Dolby Mode):	1.5 V
Center Channel Output Level:	1.5 V
Subwoofer Output Level:	2.0V
Subwoofer Crossover Frequency:	100 Hz
Function Modes:	Dolby Pro Logic Dolby 3 Hall Matrix Line In Tape In
Inputs:	Line Out (Front) Center Out Subwoofer Out Tape Out Surround Out
Outputs:	5 Segment LED meter x 4 (Center, Left, Right, Surround)
Reference Display:	120 V, AC; 60 Hz; 90 Watts
Power Requirements:	Dimensions: 16 1/2" W x 2 1/16" H x 9 1/8" D
Dimensions:	Weight: 8 lbs., 14 oz.

## Remote Specifications

Type:	Infrared Transmitter
Batteries:	1.5 V x 2; UM-3 style; "AA" Size
Dimensions:	2.5" W x 6.7" H x 0.7" D

*Designs and Specifications subject to change without notice*

**AudioSource**

9300 North Decatur  
Portland, Or. 97203

Printed in Taiwan